

# Analysis of the relationship between the consumption of beverages and the sleeping routine of the individuals

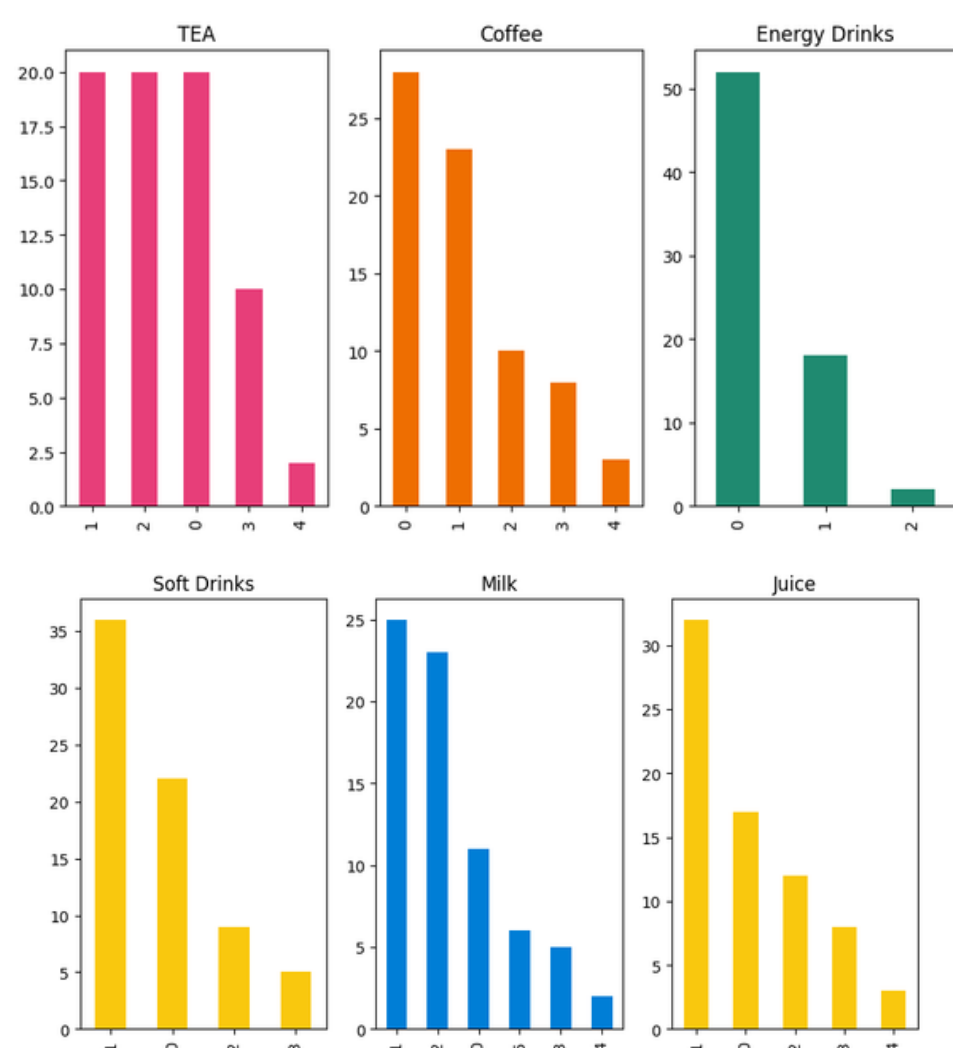
## Overview

The main focus of our project is to find out whether there is any relation between beverage consumption and sleeping routine of the individuals. We have also looked on the other affecting factors revolving around the same problem like considering age. Our data consists of the responses from 72 people.

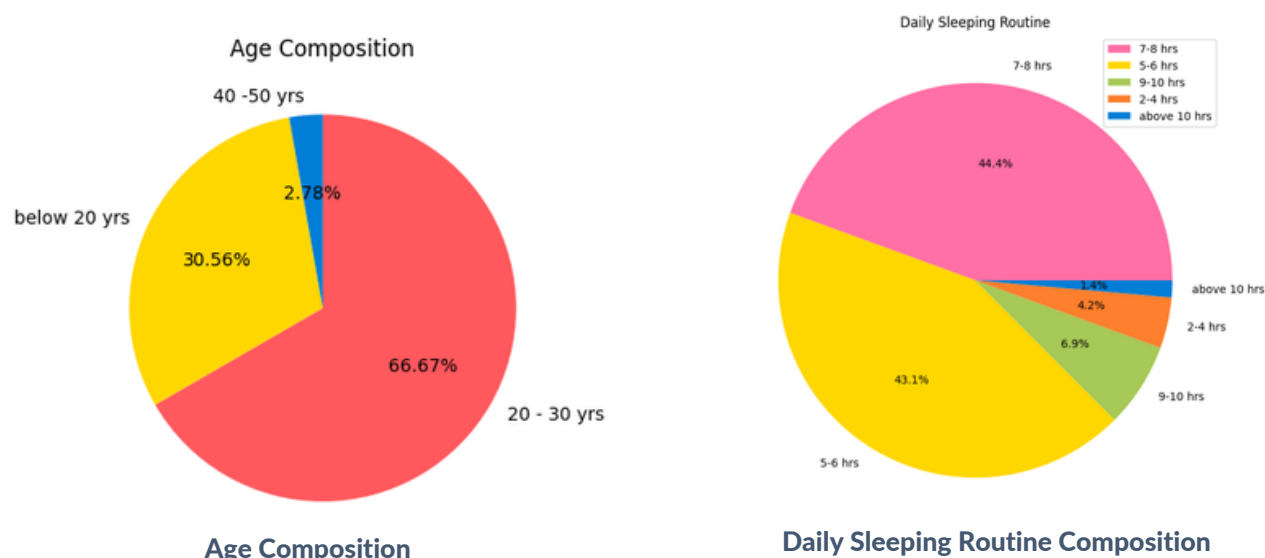
## Sampling Methods

- We have used convenience sampling for our case study. Though we have asked people randomly as well.
- Since we want to determine whether there is a relationship between beverage consumption and sleep, we have asked 10 question regarding the same.
- Most of the data is categorical in our case.
- Data consists of **72** responses.

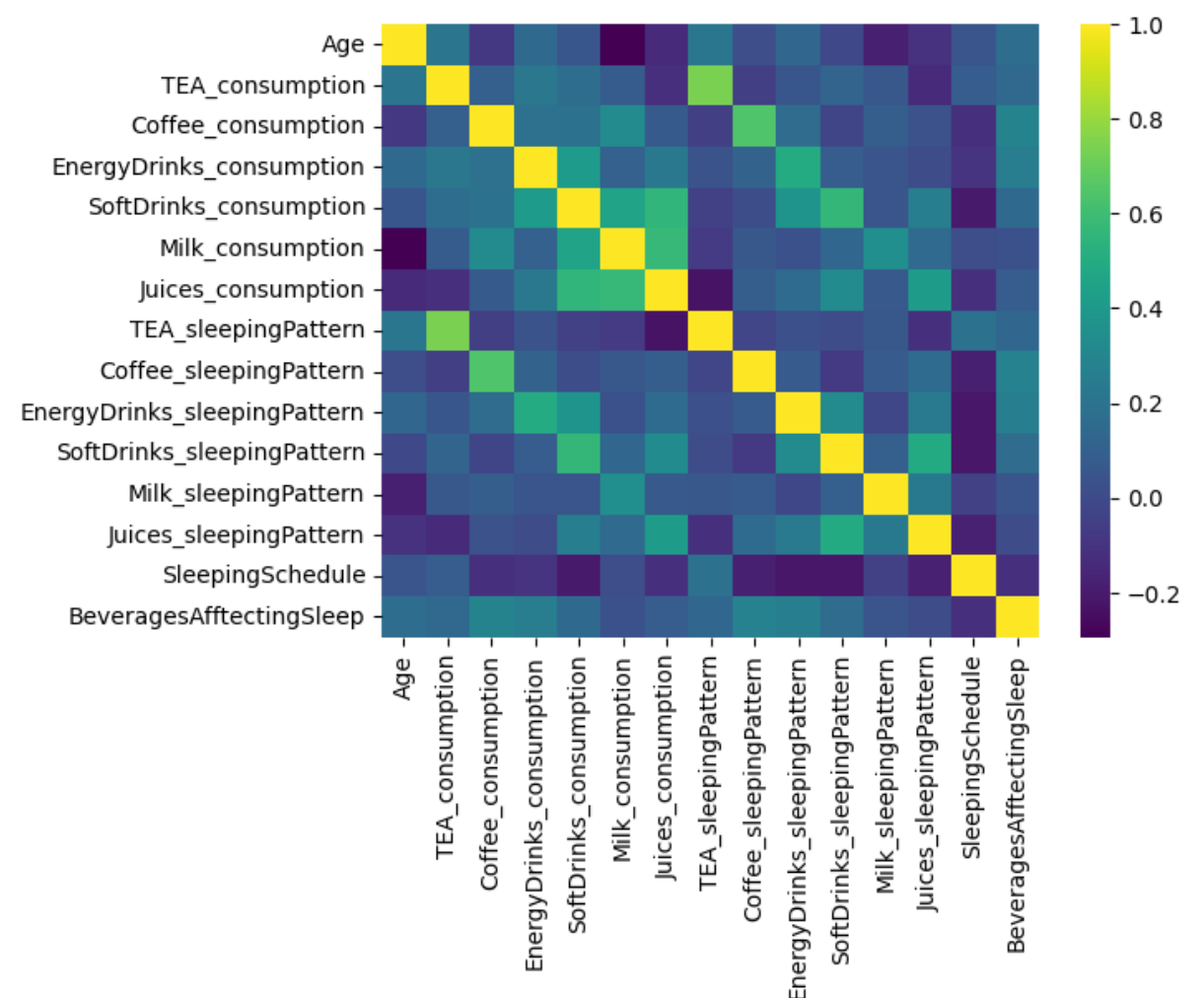
## Data visualization



X axis depicts the number of cups/cans/glass of a particular beverage.  
Y axis represents the number of people



## Correlation between the variables



## Chi-Square Test

- H0: Tea consumption does not affect sleeping routine.
- H1: Tea consumption affects sleeping routine.

Results:

- Chi-square Statistic: 66.88
- P-value: 1.221e-09 (NULL hypothesis rejected)

## Conclusions

- From the hypothesis test we can conclude that tea consumption affects the sleeping routine of an individual.
- Hence performing a chi-square test of independence on "all the beverages", we can conclude that the overall beverage consumption affects the sleeping routine of an individual.
- From the correlation matrix also we can conclude that beverage consumption affects the sleeping routine as for each beverage there is a high correlation with their sleeping pattern column of an individual.